



### Description of Relationships:

**Levels At:** Is a 1-to-1 relationship. We assume that the diversity count at each school should be one unique set of values. So a school has exactly 1 set of diversity statistics. And each row of diversity statistics maps to 1 specific school. Diversity is a weak entity that is identifiable by the school it pertains to.

**Employed By:** Is a 1-to-many relationship. We assume that each RateMyProfessor rating is relevant to a professor employed by exactly 1 school. Each school can employ several professors in the RateMyProfessor table, but must have at least one.

**Works In:** Is a 1-to-many relationship. We assume that each RateMyProfessor rating is relevant to a professor in exactly 1 major/department. However, each existing major may have none or have several ratings of professors teaching in that major.

**Located In:** Is a 1-to-many relationship. We assume that each school is located in exactly 1 state. We also assume that each state may have no schools in it, or may have several schools.

**Based In:** Is a 1-to-many relationship. We assume that each company is located in one state. We also assume that each state can have multiple companies based in them.

### Relational Schema:

School(

Name: VARCHAR(255) [PK],  
State: CHAR(20),  
TotalEnrollment: INTEGER,  
DegreeLength: INTEGER,  
Type: CHAR(20),  
EarlyCareerPay: REAL,  
MidCareerPay: REAL,  
StateSalaryRank: INTEGER,  
STEMPercent: REAL,  
InStateTuition: REAL,  
OutStateTuition: REAL,  
BoardCost: REAL

)

Diversity(

School\_diversity\_fk: VARCHAR(255) [FK to School.Name],  
WomenCount: INTEGER,  
AIANCount: INTEGER,  
AsianCount: INTEGER,  
BlackCount: INTEGER,  
HispanicCount: INTEGER,  
PacificCount: INTEGER,  
WhiteCount: INTEGER

)

RateProf(

StudentID: INTEGER [PK],  
ProfessorName: VARCHAR(255),  
SchoolName: VARCHAR(255),  
State: VARCHAR(255),  
StarRating: INTEGER,  
DifficultyRating: INTEGER,  
CourseID: REAL,  
DepartmentName: VARCHAR(255)

)

Major(

MajorName: VARCHAR(255) [PK],  
Category: VARCHAR(255),

WomenCount: INTEGER,  
TotalCount: INTEGER,  
EmployedCount: INTEGER,  
MedianPay: REAL,  
Rank: INTEGER  
)

State(  
StateName: VARCHAR(255) [PK],  
CrimeRate: REAL,  
Population: INTEGER,  
Acronym: CHAR(2),  
HappinessLevel: INTEGER  
)

Companies(  
CompanyName: VARCHAR(255) [PK],  
EmployeeCount: INTEGER,  
State: VARCHAR(255),  
Industry: VARCHAR(255)  
)